

Minutes, 7/21/04 Tevatron BPM Upgrade Meeting
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This set of minutes, and all future minutes, are or will be deposited in the Beams Document Database as document number 792.

The agenda as announced consisted of:

1. Report from Bob and Steve
2. Reports from subproject leaders and the test stand
3. Report from Technical Coordinator -- Jim Steimel
4. AOB

1. Report from Bob and Steve.

- 4 1/2 weeks before the beam goes away. We should be thinking about how soon we can get a crate of TeV BPM upgrade electronics using the upgrade software into the accelerator as soon as possible. We should not wait until the last minute or until some specific date but should make that move as soon as it makes sense to do so. People should keep this in mind as they plan.

- The filter order has been placed! This is good news, assuming that all the terms and conditions and specs have all been properly included.

2. Reports from L2 Managers

Mike Martens:

- Mike will be away next week.

- Do we need to make any more beam measurements (with an old or a new system) before the shutdown? There are probably no specific beam tests that we need. When we do get our system in we will possibly want to have the beam moved to see what happens. But for now we are fine.

Brian Hendricks:

- Brian is working on code to read the orbit data. He needs devices for the test stand and will work with Luciano to get what is needed.

Vince Pavlicek:

- Timing Board. The FPGA's came in on Tuesday. Boards are being assembled and tested. The VME interface is working. Bill has

replicated the IP (Industry Pack) interfaces. All of Craig McClure's firmware is working. Test vectors and simulation is OK. More tests on the board this week. Next week there will be dedicated testing on the board.

- Filter Board: Requisitions for the long lead-time items will be written very soon. 5 boards will be assembled and available very soon.

- The cable specification needs to be updated. Bob Forster will communicate with Bob Webber to understand Bob W.'s proposed specifications. The new specification needs to go to purchasing.

- Version 7 of the hardware design/specification document is available. Comments should go to Vince and the rest of the group.

- The Dawn crate order is moving forward. Changes needed for the crate monitoring will be applied later.

- No news from Echotek at the meeting. Information came later on Wednesday. From Mark Bowden:

"Echotek will be modifying the board layout to reduce clock noise. They expect the layout change to be finished Friday and will request 1 week turnaround on the boards. Add another week for assembly, so 2-3 weeks total. They will also try to fix the DMA and data problems (firmware) during this time.

Production delivery rate can probably be increased to make up time."

Margaret Votava:

- Margaret asked about the cable connections to the EchoTek boards. The question is how we hook up the proton and antiproton cables, in what order and on what cards. There may be implications for the total number of EchoTek cards that we need to use for the full system.

- Margaret asked about the diagnostic modes that will be used in the system. There is a need for : Dedicated on-demand diagnostics; global checks of the system using the test signals applied to all BPMs; test signals can be applied and the output data read out in a "normal" application. This is clearly an important issue and will have to be explored some more as we move forward.

- There was a question about where the VME processor listens for

TCLK. The UCD card is probably needed for some of the readout modes. This is something that does need some more investigation.

Tim Kasza:

- Nothing new. Waiting for hardware deliveries to do checkout, etc.

Dehong Zhang:

- Dehong and Luciano are trying to read out the new EchoTek board with the new front-end software on the teststand with a 53 MHz input signal to record closed orbit data. Dehong reports that they are close to achieving this important capability.

- The current status is that the new software can communicate with the timing board. Working on communications with the EchoTek and then communications with both simultaneously.

Rob Kutschke:

- Will work on the documents that Rob has promised to write up.

3. Technical Coordinator -- Jim Steimel

- No new work in the service buildings. Most of the work is done in any case and the Tevatron is running so well that opportunities to do work has been rare.

- Trying to understand software structures. Also would like to get set up to learn more about the EchoTek and the grey chip, etc.

- Thursday's meeting will be used to continue organizing the things we need for the measurement of beam in the Tevatron before the shutdown.

- Looking at and will comment on the hardware doc.

- The 10 MHz wide analog filters that are specified for the project may change the attenuator values used on the filter boards. Jim has made some measurements of signal sizes and will analyze the measurements to recommend attenuator values for proton and antiproton signals.

4. AOB.

- Meeting of the project/task force on Thursday at 1:30 P.M. in the Penthouse.

